

Electronic Supplementary Information

Towards Ultrathin Pt films on nanofibers by surface-limited electrodeposition for electrocatalytic applications

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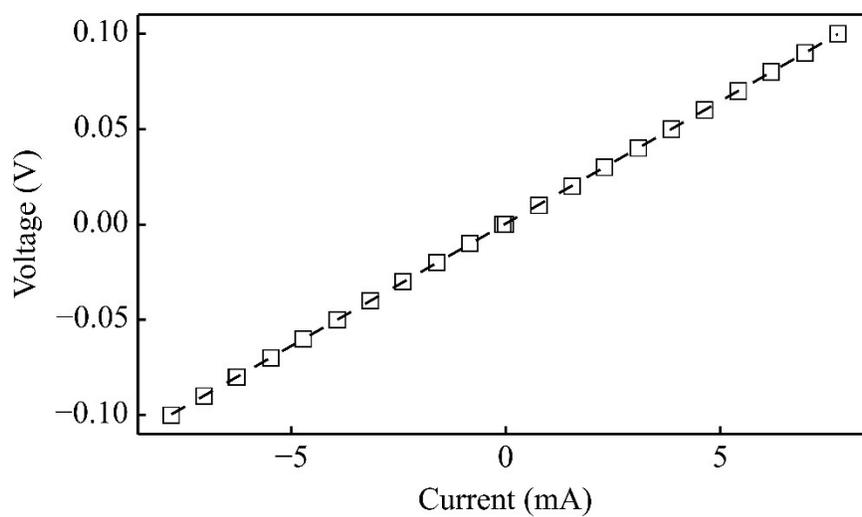


Figure S1. V-I measured in a 4 contact configuration on a 5 x 40 x 0.05 mm carbon electrode strip.

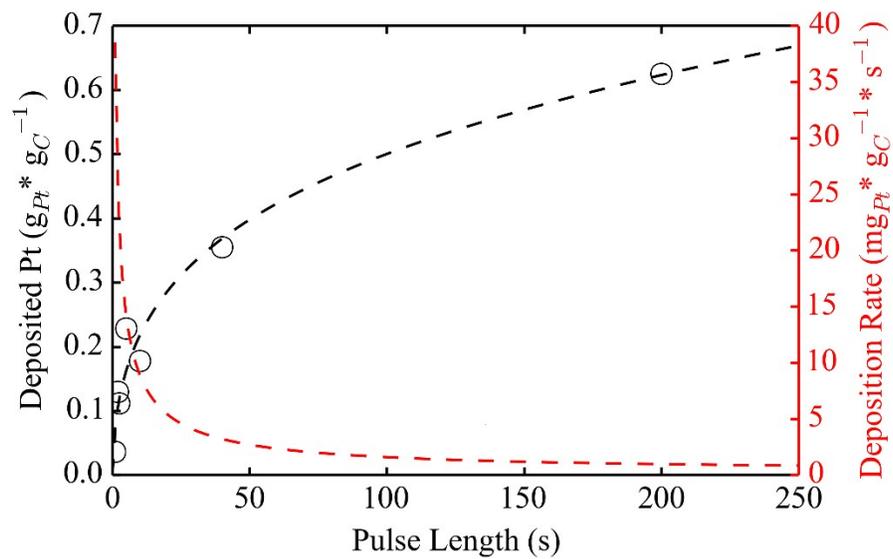


Figure S2. Pt deposited in a pulse and Pt deposition rate as a function of pulse length.

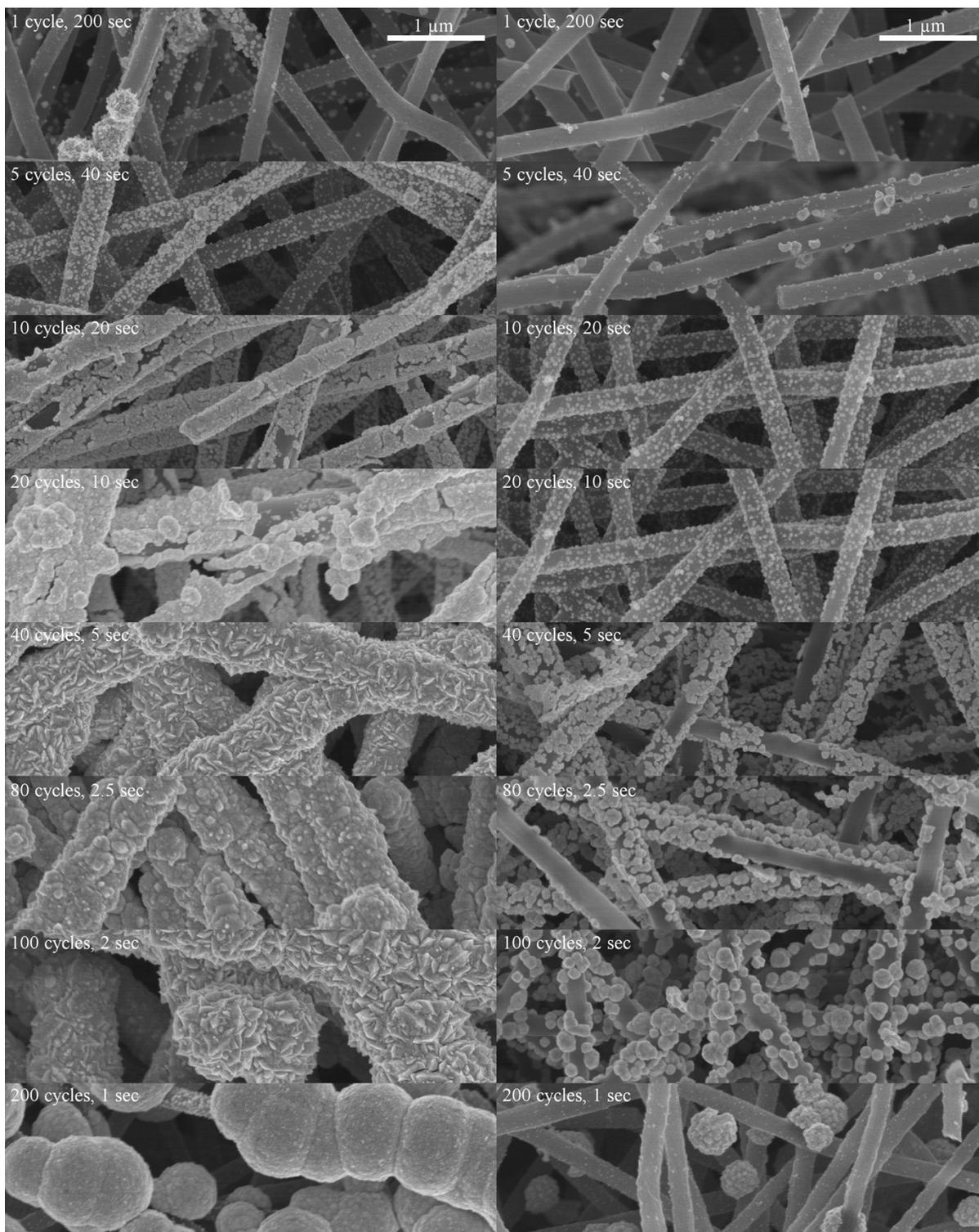


Figure S3. SEM micrographs of Pt nanoparticles on carbon nanofiber structured electrodes deposited with various pulse times. The external layers of the electrodes are shown in the left-hand column, while the electrode interior is shown in the right-hand column.

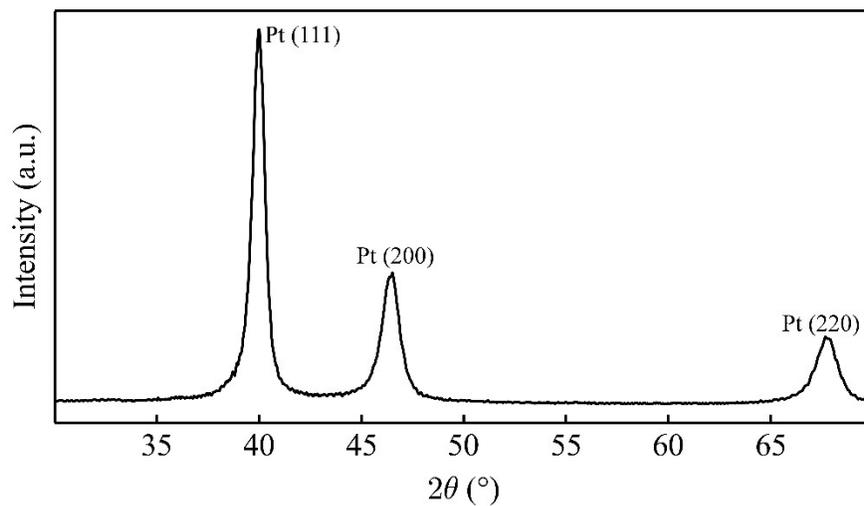


Figure S4. Typical X-ray diffraction pattern of electrodeposited Pt, Scherrer diameter ~ 6 nm.

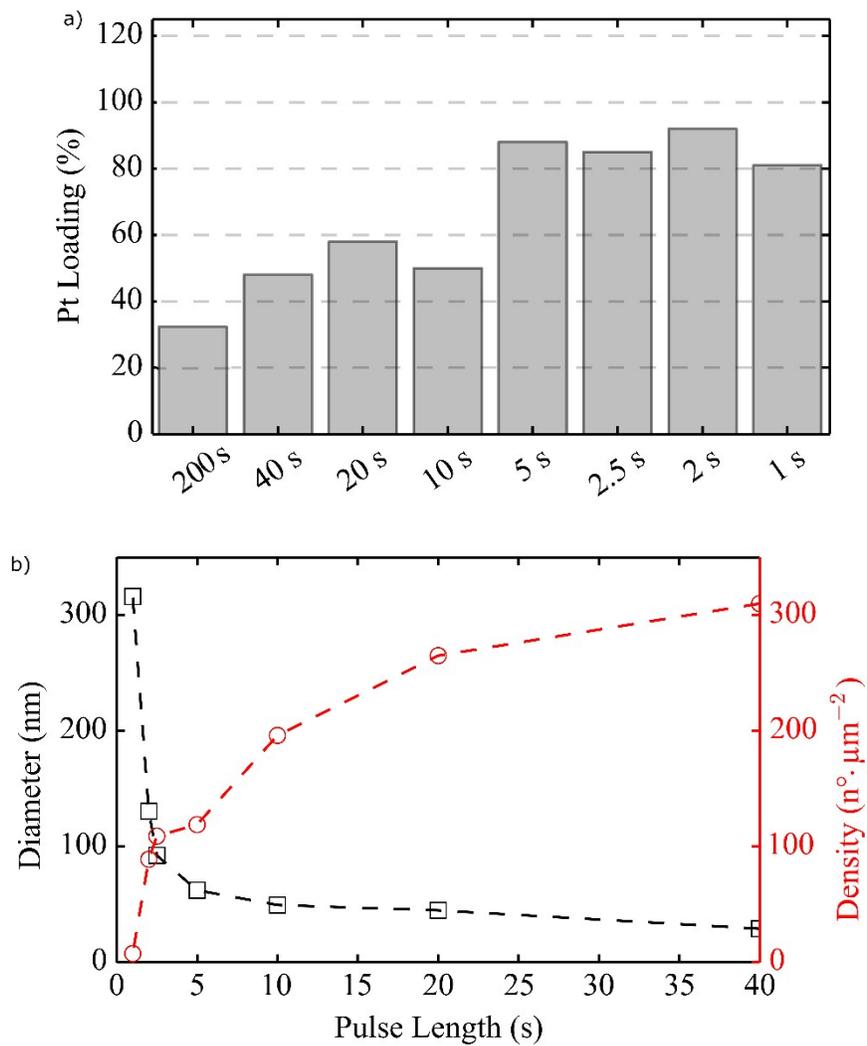


Figure S5. (a) Pt loadings measured by thermogravimetric analysis for samples with different Pt morphology deposited varying the pulse time and (b) measured average aggregate diameter and density as a function of pulse length.

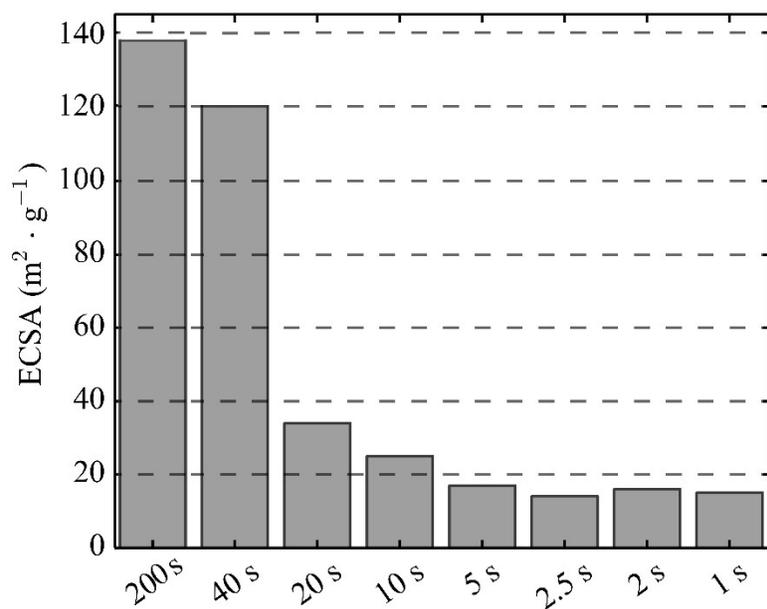


Figure S6. ECSA measured for samples with different Pt morphologies deposited varying the pulse time.

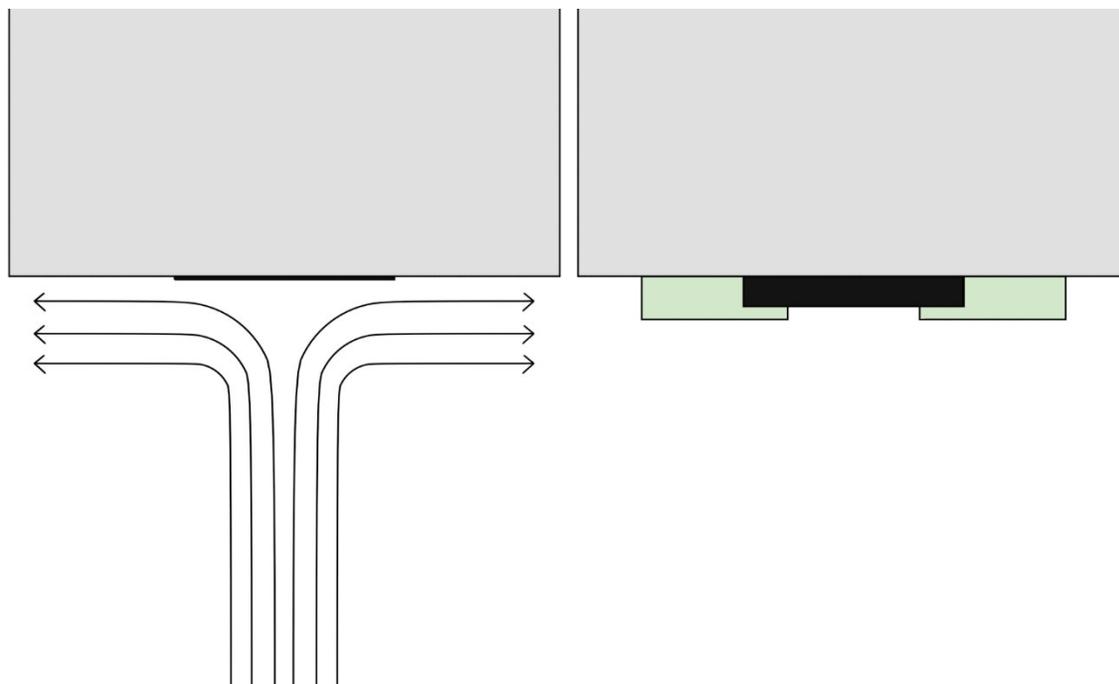


Figure S7. Comparison of a typical RDE setups and the NFE mounting.